



EFFECT OF YOGA ON CONCENTRATION, RECOGNITION, RETENTION AND MENTAL BALANCE OF SCHOOL STUDENTS

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ABSTRACT

Most of people well know that yoga is the discipline of mind and body. It is a right way of living of students. Healthy mind in the healthy body is a well known maxim. Yoga uses breath, body, mind and sound together to integrate all the dimension of physical and mental health. When yoga integrate breath and movement and other exercises such as chanting the mind becomes more focused and clear the emotions become more balanced and neuromuscular functioning is improved. Yoga helps in memory development through a clear understanding of the concept of the subject. Practices of many yogic techniques stimulate the brain and nervous system to improve memory and concentration. In this study selective yoga practices may improve memory because it involves chanting, recalling and visualization which may strengthen certain verbal awareness and attention. This investigation is aimed at to see the effect of yogic practices on memory i.e. attention, recognition, visual retention and mental balance.

KEYWORDS: yoga, attention, recognition, visual retention.

Introduction

Yoga has been variously defined and interpreted in Indian literature. Yoga is equanimity and is efficiency in action. Yoga is the control of mind's activity or 'stoppage of the waves of the mind'.¹ Yoga is one such system which literally means the 'addition' or 'yog' of the mind, the matter and the soul in conjunction with one's karma. This brings about harmony and equilibrium in the functioning of the physical limbs with the mind that control these actions.² Yoga is now promising to be one of the most modern science. It is a science of training of our muscles, nerves, breathing and the mind, so as to bring about balanced and all round development of the personality. The word yoga has been derived from the Sanskrit word 'yuj'. The meaning of 'yuj' is 'to unite' 'to combine' and thus may be considered 'state of vision or integration'. Yoga is commonly understood as the vision of the individual soul with the cosmic, divine or supreme soul, that constitute the ultimate fulfillment of man.² Yoga has a message for the human body, mind, soul and humanity. Many thousands of years ago around 2 century AD in the *raja yoga* at *Maharishi Patanjali*, in the *yoga sutra* he defined eight limbs of this great science, *yama*, *niyam*, *asana*, *pranayama*, *pratyahar*, *dharma*, *dhyana* and *Samadhi*. *Yama* and *niyam* are discipline that relate to our mental health, so that our attitude, behavior and interaction in life become harmonious and balanced. *Asana* and *pranayama* make the life clean and where some free of all bad habits. They are related to our physical health as with the proper performance of postures and breathing techniques we can remove the blocks and aspects of concentration and relaxation, give us mental and emotional health then perhaps *dhyana* or meditation will come to us. Learning is a complex process that requires sufficient physical as well as mental abilities like better memory, intelligence, attention for achieving better motor performance and reward. Optimum learning competence depends on perception, cognition, memory and reaction time. To enhance these functions are needs efficient psychological systems such as cardio-vascular endurance, respiratory efficiency, faster nerve conduction.³ It is observed that less attention is paid towards school students for their physical and mental health (vinekar,1965)⁴. The students are over loaded with academic activities round the year. The training of yoga practices showed improvement in school going children so for health and fitness achievement is concerned.(gharote,1971,1975)^{5,6} Swami satyanand saraswati (1981)⁷ states that each person has the potential of a genius, but this potential is never realized. The reason is that there is a screen which keeps this potential hidden. This screen consists of mental blocks (fear, phobia, conflicts, complexes of different types) excessive egoism and conditioning. Once we remove this screen all the inner knowledge will spontaneously reveal itself .(veena verma)⁸ Every child possesses inherent potential but neither the teacher nor the parents know how to awaken that dormant potential. The more this potential is awakened and utilized. The more children's lives will evolve in a satisfying and fulfilling way. This perhaps is the real education. Swami niranjana nand saraswati (2001) reported that psychological blocks in learning, remembering and memorizing were found in many elementary, high school and college students who were interviewed in San Francisco. It is therefore important to find a technique that can make young people aware of the psychological changes and remove their psychological block in order to make the process of learning easy and effective.⁹ Proper education can only be received when you allow children to use their intuitive abilities along with their intellectual abilities when you allow them to overcome their fear inhibitions to overcome the psychological pressure which are created without you imposing your own condition on them. The system of educating children has to be different. It has to be combined with certain practices which can remove their psychological blocks, which can make them aware of the psychological changes that happen in their body and brain

which can them aware of their own distraction and which can give them the ability to focus on the theme of the subject they are studying. Attention is the basis of will. Where there is attention, there is also concentration, attention should be cultivated gradually. Perception always involves attention. To perceive is to attend. Through attention you get a clear and distinct knowledge of subjects. The entire energy is focused on the object towards which attention is directed. Full and complete information is gained. Through attention a deeper impression is made in the mind. An attentive person has a very good memory and is very vigilant, circumspect and alert. Memory culture is very important. It brings success in god realization as well. A person with a strong and retentive memory has success in all undertakings. A student who has a retentive memory will have success in all examinations. Banerjee,S.(2011) found in his study that memory and academic achievement of school going students enhance with yogic practice and mental fatigue decrease simultaneously.¹⁰

Yoga uses breath, body, mind and sound together to integrate all the dimension of physical and mental health. When yoga integrate breath and movement and other exercises such as chanting the mind becomes more focused and clear the emotions become more balanced and neuromuscular functioning is improved.¹¹

Yoga helps in memory development through a clear understanding of the concept of the subject. Practices of many yogic techniques stimulate the brain and nervous system to improve memory and concentration. It is also mentioned that practicing yoga may increase the production of a protein called brain derived neurotropic growth factor, which stimulates the growth of connections among neurons that is most beneficial for school going children. In this study selective yoga practices may improve memory because it involves chanting, recalling and visualization which may strengthen certain verbal awareness and attention.¹² Now yoga has become a popular health practice. In new education policy has given importance to yoga not for children instead it is beneficial for everybody. The present scenario recommends, yoga practice for schools, colleges, men, women and senior citizens also.

Objective

1. To Study the effect of yogic practices on concentration of middle level students.
2. To Study the effect of yogic practices on recognition of middle level students.
3. To Study the effect of yogic practices on visual retention of middle level students.
4. To study the effect of yogic practices on mental balance of middle level students.

Hypothesis

H1: There is no significant difference in the mean scores of concentration between students of experimental and control groups at pre test and post test levels.

H2: There is no significant difference in the mean scores of recognition between students of experimental and control groups at pre test and post test levels.

H3: There is no significant difference in the mean scores of visual retention between students of experimental and control groups at pre test and post test levels.

H4: There is no significant difference in the mean scores of mental balance between students of experimental and control groups at pre test and post test levels.

Design of the study

It was an experimental study based on randomized matching a pre test ,post test,

Observation

Table 1
Mean, S.D., t-value Concentration of experimental and control group of students

S.No.	Group	Condition	No.of students	Mean	Standar Deviation	StandarError	t-value	Significance level
1	Experimental	Pre	20	6.85	1.45	0.58	5.6	0.05
		Post	20	10.15	2.15			
2	Control	Pre	20	6.45	1.19	0.56	0.27	NS
		Post	20	6.55	1.14			

Table-1 The Pre and post scores of concentration obtained for both the experimental and control groups were treated statistically to assess the effect of the practice. Post test mean and standard deviation of the experiment and control group for concentration are given in Table-1 shows the pre and post comparison of memory for the experimental and control groups. It is observed that there is a positive change in increase of experimental group as compared to controlled one. In the

control group design with one experimental group was employed to conduct the present experimental study treatment was the independent variable and dependent variable was mental balance , retention and concentration, Training in yoga exercise surya namaskar, pranayam, omkar chanting and yog nidra was given to the experimental group for 60 days one hour in the morning regularly. Sample of 40 middle class students studying in 7th standard from school of Raipur, C.G. were taken in the present study. This was further categorized into control group (20) and experimental group (20). For attention, mental balance, concentration and retention are component of memory from revised .P.G.I. memory scale from N.N.wig was used.

Table 2
Mean, S.D., t-value Recognition of experimental and control group of students

S.No.	Group	Condition	No.of students	Mean	Standard Deviation	StandardError	t-value	Significance level
1	Experimental	Pre	20	4.9	1.61	0.47	6.75	0.05
		Post	20	8.1	1.37			
2	Control	Pre	20	4.85	1.13	0.33	1.03	NS
		Post	20	5.2	1.00			

the practice. Post test mean and standard deviation of the experiment and control group for mental balance are given in Table-2 shows the pre and post comparison of memory for the experimental and control groups. It is observed that there is a positive change in increase of experimental group as compared to controlled one. In the experimental group of the mean pre value of 4.9 increased to 8.1 in the

experimental group of the mean pre value of 6.85 increased to 10.15 in the post condition, the mean difference being found to be highly significant ($p<0.05$).In the control group the pre mean value of 6.45 increased to 6.55 in the post condition, the mean difference being statistically significant in experimental condition.Table -2 The Pre and post scores on recognition obtained for both the experimental and control groups were treated statistically to assess the effect of

Table 3
Mean, S.D., t-value visual Retention of experimental and control group of students

S.No.	Group	Condition	No.of students	Mean	Standard Deviation	Standard Error	t-value	Significance level
1	Experimental	Pre	20	6.55	1.50	0.56	7.83	0.05
		Post	20	11	2.05			
2	Control	Pre	20	6.45	1.46	0.47	1.48	NS
		Post	20	7.15	1.50			

of the practice. Post test mean and standard deviation of the experiment and control group for mental balance are given in Table-3 shows the pre and post comparison of memory for the experimental and control groups. It is observed that there is a positive change in increase of experimental group as compared to controlled one. In the experimental group of the mean pre value of 6.55 increased to 11 in

the post condition, the mean difference being found to be highly significant ($p<0.05$).In the control group the pre mean value of 6.45 increased to 7.15 in the post condition, the mean difference being statistically significant in experimental condition.Table-3 The Pre and post scores on visual retention obtained for both the experimental and control groups were treated statistically to assess the effect

Table-4
Mean, S.D., t-value of Mental Balance of experimental and control group of students

S.No.	Group	Condition	No.of students	Mean	Standard Deviation	Standard Error	t-value	Significance level
1	Experimental	Pre	20	4.7	1.21	0.35	5.42	0.05
		Post	20	6.6	1.04			
2	Control	Pre	20	4.25	0.96	0.30	1.16	NS
		Post	20	3.9	1			

of the practice. Post test mean and standard deviation of the experiment and control group for mental balance are given in Table-4 shows the pre and post comparison of memory for the experimental and control groups. It is observed that there is a positive change in increase of experimental group as compared to controlled one. In the experimental group of the mean pre value of 4.7 increased to 6.6 in the post condition, the mean difference being found to be highly significant ($p<0.05$).In the control group the pre mean value of 4.25 decreased to 3.9 in the post condition, the mean difference being statistically significant in experimental condition.

Discussion

Values shows in table-1 Hypothesis H1 Viz “There is no significant difference in the mean scores of attention between students of experimental and control groups at pre test and post test levels.” Was rejected in favor of the finding that the experimental group ($t=5.6$) that was exposed to yogic practices reported increase in attention whereas no such difference was observed in the control group. Thus H1 was rejected.

Entries made in table-2 t-ratio for the mean increased scores of middle level

school students between the experimental and control group on recognition was found to be significant at 0.05 level of confidence ($t=6.75$). Thus H2 was rejected as the experimental group students who were exposed to yogic practices exhibited increases of recognition as compare to their counter part of the control group.

Entries made in table-3 t-ratio for the mean increased scores of middle level school students between the experimental and control group on visual retention was found to be significant at 0.05 level of confidence ($t=7.83$). Thus H3 was rejected as the experimental group students who were exposed to yogic practices exhibited increases of visual retention as compare to their counter part of the control group.

Values exhibits in table-4 There is no significant difference in the mean scores of mental balance between students of experimental and control groups at pre test and post test levels." Was rejected in favor of the finding that the experimental group ($t=5.42$) that was exposed to yogic practices reported increase in mental balance whereas no such difference was observed in the control group thus H4 was rejected.

RESULT

The result concerning the variables of concentration, recognition, visual balance and mental balance have been rationale in the term of hypothesis that experimental group will outperform and control group due to yogic practices. This result could best be depicted through t-test on various inclusive parts of memory. There is no significant difference in attention and concentration of students of experimental and control group at pre test and post test level was rejected in favor of the finding that yogic practice helped in increasing of attention from pre and post test among students of experimental group as compared to the control group. Selvamurty (1986), observed that the regular practice of posture and breath control .improved cognitive ability of the brain including concentration ,memory and psychomotor performance. Similarly t-value of visual retention of middle level students of experimental group at pre and post test was significant. Chanting of om recitation stimulates the brain cells resulting in their reactivation and ultimately leading to better concentration (Ghoses.k.2003) Thus result shows that t-value of mental balance of middle class students of experimental group at pre and post test was significant whereas control group of pre and post was not significant. For school students high level of performance is essential mostly writing notes or during integration in classroom situation. In fact psychomotor performance ability can be improved by practicing omkar recitation, pranadharmand nadanusadhana which are known as higher yoga practice (Kochar and pratap1972, sahu & bhole 1993 a&b). In inclusion it can be said that the great ancient Indian science of yoga is very effective in opening up of the hidden potential of pupil by clearing their psychological blocks of phobia conflicts and complexes of different types. In addition it improves their attention and concentration and memory by reducing mental fatigue. Apart from improving the neurological function of the brain like visual attention mental balance and recall in all students especially school going student group.

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